

**ADDER CIRCUIT WITH SENSE-AMPLIFIER
MULTIPLEXER FRONT-END**

ABSTRACT

An adder circuit includes a number of selectors and an adder. The selectors feed the adder with multiple input data bits. Each of the selectors includes a
5 combination of a multiplexing network and a sense amplifier to select from a number of input values to generate the multiple input data bits. The combination of the multiplexing network and the sense amplifier acts as the state-holding element at the input of the adder, avoiding the overheads of an explicit latch stage.

"Express Mail" mailing label number: EV298565588US

Date of Deposit: December 4, 2003

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